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32. (New) The exercise device of claim 29 wherein the seat structure includes a pivotal seat back and wherein the pivotal seat back pivots away from the foot press plate between the seat structure rest position and the at least a second seat structure position.

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33. (New) The exercise device of claim 29 further comprising a transfer link having a first portion pivotally connected with the foot press plate and a second portion pivotally connected with the seat structure.

34. (New) An exercise device for a user to exercise comprising:
sitting means;
foot press means; and
transfer links means connecting the sitting means to the foot press means.

REMARKS

Claims 1-11 are currently pending. The specification is amended to correct minor typographical errors and to add reference numbers where appropriate. Claims 1 and 6-10 have been reformatted, but are otherwise unchanged. In claim 7, "articulating" has been removed. Claims 12-34 have been added as new claims via this preliminary amendment. No new matter is added by this preliminary amendment.

The appropriate fee of \$504.00 for new claims 12-34 accompanies this amendment. It is believed that no additional fees are required, however, if the Examiner determines that any additional fee is required, please charge the additional fee to Deposit Account 04-1415.

The Examiner is requested to contact the undersigned via telephone to address any issues regarding the application and allowance of the pending claims.

PATENT
Attorney Docket No. 11006.00
Express Mail Label No. EV 016645661 US

Signed at Denver, Colorado, this 12th day of December 2001.

Respectfully submitted,



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MARKED-UP VERSION TO SHOW CHANGES MADE

In the Specification:

The paragraph beginning on page 1, line 19 has been amended as follows:

This application includes an Appendix consisting of [3] 4 total pages. This appendix includes one figure labeled as [Figs.] Fig. 10 (Appendix). This figure is numbered to correspond with the associated component list which is also included in the Appendix. The contents of the Appendix are hereby incorporated by reference as though fully set forth herein.

The paragraph beginning on page 4, line 18 has been amended as follows:

The exercise device with a body extension mechanism of the present invention includes a main frame 10 supporting a weight stack 12 structure operably connected with a body extension mechanism 14. Fig. 1 illustrates an exploded view of the main frame 10 supporting the weight stack structure 12 and the body extension mechanism 14. For purposes of this description, the perspective of a user seated on the device will be used to describe the device wherever appropriate. For example, from the perspective of a user, the weight stack structure [12is] 12 is to the right and hence on the right side of the device. In one embodiment, the main frame 10 extends from the front of the device rearwardly to the rear of the device and includes a lower frame member 16. The lower frame member 16 defines a top 18, a left side 20, a right side 22, a front portion 24, and a rear portion 26. A left pivot mounting bracket 28 and a right pivot mounting bracket 30 are attached with the front left portion (20, 24) of the lower frame member 16 and with the front right portion (22, 24) of the lower frame member respectively. The pivot mounting brackets (28, 30) pivotally support a press plate mechanism 32 as is described in more detail below.

The paragraph beginning on page 8, line 3 has been amended as follows:

Referring again to Fig. 1 and others, a pivot pin 152 extends between the front lift pulley apertures 136 and pivotally supports a front lift pulley 154. The pivot pin 152 provides the pulley axle for the front lift pulley 154. A first retention pin 156 extends between the front retention pin apertures 138 and is adapted to prevent the cable 108 from running off the pulley 154 during use. Preferably, the retention pin 156 is located adjacent an outside edge of the circumferential flanges

(144, 146) and thereby deflects the cable [18] 108 back into the channel 142 if the cable 108 rides up on either flange. Preferably, the retention pin 156 is located close enough to the pulley 154 so as to not interfere with its operation, but to also prevent the cable 108 from riding up on the flange and between the flange and the retention pin. In one embodiment, the retention pin 156 rotates in the retention pin apertures 138 when the cable engages it, and thereby minimizes any resistance therebetween.

The paragraphs beginning on page 12, line 15 have been amended as follows:

The top link 200, front link 202, rear link 204, and frame 10 are all pivotally attached together, as described above, to move as a four-bar link system 198. The frame portion of the four-bar link system acts as an anchor, relative to which the other three links move. In the rest position, the footplate 196 is angled downwardly and toward the user, which means the heels of the user are closer to the user's body than the user's toes. The four-bar link system 198 is angled toward the user, with the top of the link 204 closest to the user extending further upwardly than the top of the link 202 furthest from the user. The plate support bracket 206 thus extends upwardly and toward the user, with the footplate 196 attached to the plate support bracket and extending, as above, downwardly and toward the user. In moving to the full extension position, the front and rear links (202, 204) pivot about their respective connection to the frame 10 and angle slightly forwardly away from the frame. The tops of each of the front and rear links are at approximately the same height (although since the rear link is longer it is at more of an angle than the front link). The plate support bracket 206 extends substantially parallel to the floor, and the footplate 196 extends substantially vertically relative to the floor. The user's heels are now about the same distance away from the user as the user's toes. This helps stretch out the calf muscles and replicate the action of standing up from a crouch.

The articulating seat structure 54 includes the seat 36 and the back support 52. A seat [240] bracket 240 is connected to the underside of the seat 36. The underside of the seat bracket (not shown) defines an air shock receptor for receiving the top of the air shock 70, and also defines a guide rod receptor for receiving the top of the guide rod 72. An air shock actuation lever is connected with the air shock adjacent the seat bracket 240. As is well known in the art, the air shock lever controls the up and down movement of the air shock 70 and the seat 36 connected



therewith. Pressing downward on the air shock lever unlocks the air shock 70. In the unlocked position, if downward pressure is placed on the seat 36, then the seat will move downwardly, and if little or no downward pressure is placed on the seat 36, then the seat will move upwardly. Accordingly, the user may adjust the height of the seat 36. By releasing the air shock lever the air shock 70 locks in position. The guide rod 72 prohibits rotation of the seat 36 about the air shock 70. Preferably, the seat is fixed along the length of the main frame 10.

The paragraph beginning on page 13, line 29 has been amended as follows:

Referring to Figs. 5 and 6, which illustrate a back support adjustment mechanism 262, the back support plate 254 and hence the back support 52 connected therewith may be adjusted between a forward position (shown in Fig. 6) and a rearward position (shown in Fig. [6] 5) by actuation of the over-center back support adjustment mechanism 262 which pivots the back support 52 forwardly or rearwardly. The over-center back support adjustment mechanism 262 includes an adjustment arm 264 having a left rear over-center link 266 and a right rear over-center link 268 fixed thereto. The left rear over-center link 266 is pivotally connected with a left front over-center link 270, and the right rear over-center link 268 is pivotally connected with a right front over-center link 272. The rear over-center links (266, 268) are also pivotally connected P_L with the lower left side of the back member portion 252 of the articulating seat member between about midway along the length of the rear over-center links (266, 268). The left front over-center link 270 is pivotally connected with the lower left portion of the back support plate 254, and the right front over-center link 272 is pivotally connected with the lower right portion of the back support [plate254] plate 254.

The paragraph beginning on page 14, line 27 has been amended as follows:

The left arcuate arm 274 and the right arcuate arm 276 extend outwardly and forwardly from the left lower portion and right lower portion, respectively, of the back member portion 252. A left hand grip 278 and a right hand grip 280 extend upwardly and outwardly from the end of the left arcuate arm 274 and the right arcuate arm [278] 276 respectively. Preferably, the hand grips (278, 280) are configured so that a user seated on the seat 36 may grasp the hand grips during exercise.



The paragraph beginning on page 15, line 19 has been amended as follows:

The seat back support pivotally moves with respect to the back support pivots. The seat back support is attached to the articulating seat member 248, which defines a lower actuation arm 250. The lower actuation arm, as described in more detail below, is attached to the transfer link 195, so that when the transfer link moves, the seat back pivots about the back support pivots. This causes the user, resting against the seat back support, to recline or incline according to the drive direction of the transfer link. As described below in more detail, the amount the seat back reclines is tied directly to the distance the footplate is moved.

The paragraphs beginning on page 17, line 4 have been amended as follows:

The weight transfer pulley 312 that actuates the load to be applied during the exercise motion, or the load pulley, is attached to the transfer link 195. The load pulley 312 is attached to the bottom of the transfer link by a bracket, and is oriented to rotate in a plane extending along the length of the transfer link (the pivot axis is transverse to the transfer link). The belt 108 or cable of the cable pulley system wraps around the load pulley, so when the transfer link is moved (due to the movement of the foot plate), the load pulley 317 moves correspondingly, thus extending the belt and lifting the selected load.

Preferably, one end of the cable 108 is connected with the top of the weight selection bar 106 as mentioned above, and the other end of the cable 108 is connected with the main frame 10 adjacent the rear of the seat support post 34 using a retainer similar to the retention structure 110. A weight transfer pulley 312 is connected with the bottom of the rear portion 294 of the transfer link 195 with the axle of weight transfer pulley 312 transverse to the length of the transfer link. The first transfer pulley 44 is preferably connected with the seat support post 34, preferably with the axle of the first transfer pulley 44 connected between the left post bracket 38 and the right post bracket 40. A second transfer pulley 314 is connected with the lower frame member 16, preferably with the axle of the second transfer pulley 314 connected between the left side 20 and the right side 22 of the lower frame member, and preferably below the first transfer pulley 44. A third transfer pulley 316 is also connected with the lower frame member [316] 16, preferably with the axle of the third transfer pulley 316 connected between a bracket along the bottom of the frame

member and the top of the frame member. In the most rearward position of the body extension illustrated in Figs. 3 and 8, the weight transfer pulley 312 is generally aligned with the first 44 and second 314 transfer pulleys, and in the most forward or extended position of the body extension illustrated in Figs. 4 and 9, the weight transfer pulley 312 is forward of the first and second transfer pulleys (44, 314).

The position of the weight transfer pulley 312 depends on the position of the footplate 32. In other words, as the footplate is pushed by the user, the transfer link 195 is moved with the footplate, which in turn moves the weight transfer pulley 312, which by actuating the cable 108 or belt, causes the selected load to be lifted. In the rest position the weight transfer pulley is positioned under the seat 36, and in the fully extended position, the weight transfer pulley is moved to be positioned well in front of, and generally between, the front and rear ends of the exercise machine.

In the Claims:

Claim 1 has been amended as follows:

1. (Amended) An exercise device comprising:
 - a frame;
 - a body extension mechanism including:
 - a press plate mechanism operably connected to the frame;
 - a seat structure having a seat and a back support, the back support being pivotally connected with the frame; and
 - a transfer link having a first end and a second end, the first end being operably connected with the press plate mechanism, and the second end being operably connected with the back support.



Claims 6-10 have been amended as follows:

6. (Amended) The exercise device of claim 1, wherein:

[Said] said link has a front portion defining a channel, and a rear link portion; and

[Said] said rear link portion being insertable in the channel so that the length of the transfer link is adjustable.

7. (Amended) The exercise device of claim 1, wherein:

the [articulating] seat structure further includes an over-center back support adjustment mechanism whereby the orientation of the back support with regard to the seat may be adjusted.

8. (Amended) The exercise device as defined in claim 1, further comprising:

[A] a weight stack having at least one weight plate.

9. (Amended) The exercise device as defined in claim 8, further comprising:

[A] a cable operably connected between the body extension mechanism and the weight stack.

10. (Amended) The exercise device as defined in claim 1, further comprising:

[A] a weight stack having at least one moveable weight plate;

[A] a cable operably connected between the body extension mechanism and said moveable weight plate; and

[Wherein] wherein the movement of said body extension mechanism causes said transfer link to move, thus tensioning said cable to move said at least one weight plate, and as causing said back support to pivot about its connection with said frame.

[END OF DOCUMENT]